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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/896,246	06/29/2001	Ronald S. Kolessar	03382- P0043A	9192

7590 04/25/2007
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EXAMINER

YIMAM, HARUN M

ART UNIT	PAPER NUMBER
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2623

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/25/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/896,246

Applicant(s)

KOLESSAR, RONALD S.

Examiner

Harun M. Yimam

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-126 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5-23, 26-49, 52-82, 85-95, 99-105 and 108-126 is/are rejected.
- 7) ☒ Claim(s) 3, 4, 24, 25, 50, 51, 83, 84, 96-98, 106 and 107 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 04/02/2007.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 04/02/2007 has been considered by the examiner.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04/02/2007 has been entered.

Response to Arguments

3. Applicants' arguments filed 04/02/07 with respect to claims 1-126 have been fully considered but are not persuasive.

4. In response to applicants' argument (page 25, 3rd paragraph) that Lu does not process such a data set to **decode** the ancillary codes, applicants should note that Lu discloses the processing of said data is for the purpose of ancillary code detection (column 10, lines 10-30 and column 12, lines 36-65) and sufficiently **decode** the ancillary codes for processing to determine the correlation of ancillary codes with the program records stored (column 13, lines 17-25). Applicants should first understand that the word **decode** is a very broad term and by definition means to recognize and interpret an electronic signal or simply to discover the underlying meaning of. In this case, after the ancillary codes have been detected/recognized, the step of correlating said ancillary codes with the program records stored meets the decoding step.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 8 – 14, 21, 22, 26, 30 – 34, 41, 48, 55 – 59, 66, 67, 74, 81, 85, 88, 91, 94, 101, 104 and 108 are rejected under 35 U.S.C. 102(e) as being anticipated by Lu et al (US 6,647,548).

Regarding claims 1, 22, 41, 48, 67, 74, 81, 88, 91, 94, 101, 104, 111, 112, 120 and 121, Lu discloses a coded/non-coded program audience measurement method and system which determines the program being viewed by detecting ancillary codes received. Lu discloses receiving a program broadcast signal (see col. 6 lines 51 – 58), which includes ancillary codes (see col. 7 lines 10 – 20) for displaying reproducible images on television 24 (see fig 1). The media data, which includes television programming, can also include ancillary codes, but that not all the received media data includes ancillary codes (see col. 8 lines 44 – 60).

Lu further discloses the program media is received at the monitoring site and ancillary data is extracted from the signal. Lu discloses "The sensors 48 are arranged to acquire at least portions of the program signals corresponding to the programs or stations that household members select for viewing on the television 24. These portions of the program signals acquired by the sensors 48 are pre-processed, as desired, by the pre-processing circuit 50. The signal pre-processing circuit 50 supplies pre-processed program signals both to the ancillary code reader 52, which attempts to locate and read ancillary codes from the program signals....". It is noted that Lu

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discloses a monitoring device with an input to receive the media data and a first processor coupled to the monitoring device for performing the above functions.

Lu still further discloses storing and transmitting the data to a central office for processing. Lu discloses "The major function of the central office apparatus 32 is that of identifying viewed programs. For this purpose, the central office apparatus 32 retrieves all of the tuning records 90 from all of the statistically selected households 12." Lu further discloses "A block 110 determines whether the tuning records 90 from the statistically selected households 12 include ancillary codes in the code field 96. If the tuning records 90 from the statistically selected households 12 include ancillary codes in the code field 96, the ancillary codes are subjected to sanity processing by a block 12."

It is noted that Lu discloses the first communications device for sending the data set to the remote central office and a second communication device at the office for receiving the data set

Thus, Lu discloses forming a data set comprising extracted ancillary codes for transmission from the user site to the remote central office via a public switched telephone network 42 (see col. 7 lines 1 – 5). It is noted that a data set for transmission via a telephone network must inherently be formed.

It is further noted that the central office processes (by a second processor) the ancillary codes, thus the transmitted data is such to sufficiently decode the ancillary codes for processing to determine the correlation of ancillary codes with the program records stored (see col. 13 lines 17 – 25).

Furthermore, for newly added limitations in claims 111 (lines 12-14) and 120 (lines 10-13), Lu further discloses in an incorporated and commonly assigned reference (US 4,697,209) (column 3, lines 30-55, column 8, lines 33-35 and column 10, lines 51-58) that if ancillary codes are not detected in the data set, producing a signature characterizing the media data and matching the produced signature with a reference signature associated with identification data for the media data (column 3, lines 30-55).

As to claims 8, 9 and 117, Lu discloses the media data comprises audio and video data (see col. 6 lines 51 – 65).

As to claims 10, 30 and 55 Lu discloses a radio broadcast or audio cable transmissions for receiving the media data (see col. 6 lines 63 – 65) and thus discloses the claimed acoustic energy.

As to claims 11,12, 31, 32, 56, 57, 118 and 126, Lu discloses a fiber optic system for receiving the media data (see col. 6 lines 56 – 58) and thus discloses the claimed electromagnetic energy and light energy inherent to fiber optical communication systems.

As to claims 13, 33 and 58 Lu discloses detecting media from microphones and thus discloses magnetic energy (see col. 7 lines 32 – 55). It is noted that applicants disclose magnetic energy is associated with a speaker.

Regarding claims 14, 34 and 59, Lu discloses receiving media data signals via coaxial cable and thus discloses electrical energy inherent to coaxial cable systems (see col. 6 lines 55 – 57).

Regarding claims 21, 26, 66, 85, 108 and 119, Lu discloses receiving media data in a portable monitoring device carry able on the person of a user (see col. 6 lines 18 – 22, col. 9 line 48 – col. 10 line 9).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 2, 5- 7, 15 – 20, 27 – 29, 35 – 40, 42 – 47, 49, 52 – 54, 60 – 65, 68 – 73, 75 – 80, 82, 86, 87, 89, 90, 92, 93, 95, 99, 100, 102, 103, 105, 109 and 110 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lu (6,647,548).**

Regarding claims 20, 40, 47, 65, 73 and 80 Lu discloses “...it will be understood that program signals can be transmitted and/or distributed by a wide variety

of means..." (see col. 6 lines 55 – 60) but Lu fails to disclose detecting a spread spectrum code as the ancillary code.

Official Notice is taken it would have been well known to transmit media data via spread spectrum code to enable transmission over a wireless communication medium. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Lu to include the claimed limitation to provide communication over a wireless network.

Regarding claims 2, 15, 23, 35, 42, 49, 60, 68, 75, 82, 86, 89, 92, 95, 99, 102, 105, 109, 113 and 122, Lu discloses transmitting a portion of the media data received to the central office by transmitting a data set via a public switched telephone network but fails to disclose transforming the data into frequency-domain data. Official Notice is taken that it would have been well known to frequency division multiplex data by transforming the data into frequency-domain data for the benefit of maximizing bandwidth efficiency. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Lu to include transforming, transmitting, receiving and processing the media data or ancillary codes in the frequency domain for the benefit of maximizing bandwidth efficiency.

Regarding claims 5, 27, 52, 114 and 123, Lu discloses transmitting a portion of the media data received to the central office by transmitting a data set via a public switched telephone network but fails to disclose transforming the data into time domain

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information. Official Notice is taken that it would have been well known to time division multiplex by transforming the data into time domain data for the benefit of maximizing bandwidth efficiency. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Lu to include transforming, transmitting, receiving and processing the media data or ancillary codes in the time domain for the benefit of maximizing bandwidth efficiency.

As to claims 6, 28, 53, 115 and 124, Lu discloses the data set is a subset of the media data, and as discussed above, it would have been obvious to modify Lu to include transforming the data into the time domain. Necessarily, since the data set is smaller than the media data, it inherently has a frequency range narrower than that of the media data.

Regarding claims 7, 29, 54, 116 and 125, Lu fails to disclose wherein the data set comprises data representing phase information.

Official Notice is hereby taken transmitting data as phase information would have been known to maximize transmission and / or bandwidth efficiency. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Lu to include the claimed limitation for the benefit of maximizing transmission and / or bandwidth efficiency.

As to claims 16, 36, 43, 61, 69, 76, 87, 90, 93, 100, 103 and 110, as discussed above, it would have been obvious to modify Lu to convert, transmit, receive and process data in the frequency domain. Necessarily, the frequency-domain data would have been processed to detect components of the ancillary codes at predetermined frequencies.

Regarding claims 17, 37, 44, 62, 70 and 77 fails to disclose wherein the frequency-domain data or ancillary data is distributed according to a frequency-hopping pattern. Official Notice it would have been well known to distribute data via a frequency-hopping pattern to provide a wireless communication system, which maximizes the efficiency of the available bandwidth. For example, in the telecommunications art, it would have been notoriously well known to transmit cellular telephonic data using a frequency hopping technique. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Lu to include the claimed frequency-hopping pattern for the benefit of having a wireless communication system, which maximizes the efficiency of the bandwidth available.

Regarding claims 18, 19, 38, 39, 45, 46, 63, 64, 71, 72, 78 and 79 fails to disclose wherein the code components comprise pairs of frequency components modified in amplitude to encode information and fails to disclose wherein the code

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components comprise pairs of frequency components modified in phase to encode information.

Official Notice is hereby taken it would have been well known modify pairs of frequency components in amplitude or phase to encode information for the benefit of maximizing transmission efficiency and/or bandwidth efficiency. Therefore, it would have been able to one having ordinary skill in the art at the time the invention was made to modify Lu to include modify pairs of frequency components in amplitude or phase to encode information for the benefit of maximizing transmission efficiency and/or bandwidth efficiency.

Allowable Subject Matter

9. ***Claims 3, 4, 24, 25, 50, 51, 83, 84, 96, 97, 98, 106, and 107*** objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harun M. Yimam whose telephone number is 571-272-7260. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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